

## **ABSTRACT OF THE DISCLOSURE**

The invention relates to a method for operating semiconductor chips, particularly memory chips, which are arranged in groups on modules which are connected to a common data bus where each semiconductor chip on each module is connected to at least one data line in the data bus having the following method steps:

- a) a group of semiconductor chips is selected from semiconductor chips arranged on the modules on the basis of a prescribed selection criterion independently of module, the selected group of semiconductor chips using the data lines in the data bus over the entire bus width;
- b) the semiconductor chips in the selected group are activated; and
- c) data interchange is performed between the data lines in the data bus and the selected group of semiconductor chips.